No. 2013-1455

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

POWER MANAGEMENT SOLUTIONS LLC,

Plaintiff-Appellant,

v.

ADVANCED MICRO DEVICES, INC.,

Defendant-Appellee.

Appeal from the United States District Court for the District of Delaware in case no. 12-CV-0426, Judge Richard G. Andrews.

BRIEF FOR DEFENDANT-APPELLEE ADVANCED MICRO DEVICES, INC.

(Counsel listed on inside cover)

October 3, 2013

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CERTIFICATE OF INTEREST

Counsel for Defendant-Appellee Advanced Micro Devices, Inc. certifies the following:

1. The full name of every party or amicus represented by me is:

   Advanced Micro Devices, Inc.

2. The name of the real party in interest (if the party named in the caption is not the real party in interest) represented by me is:

   Advanced Micro Devices, Inc.

3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of the party or amicus curiae represented by me are:

   None.

4. The names of all law firms and the partners or associates that appeared for the party or amicus now represented by me in the trial court or agency or are expected to appear in this Court are:

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Dated: October 3, 2013

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TABLE OF CONTENTS

Page

TABLE OF AUTHORITIES

Page(s)

CASES

STATEMENT OF RELATED CASES

There are three related cases pending before this Court: (1) *Power Management Solutions LLC v. NVIDIA Corporation*, No. 2013-1456; (2) *Power Management Solutions LLC v. Intel Corporation*, No. 2013-1457; and (3) *Power Management Solutions LLC v. Qualcomm Inc.*, No. 2013-1477. Appellant Power Management Solutions LLC has submitted opening briefs in each of the four appeals. Each of the related appeals raises the same issues. The parties in the present case, the Intel/Marvell/TI case, and the NVIDIA case have moved to consolidate the three appeals; the Court has not yet acted on those motions. The Court has stayed the Qualcomm case pending the issuance of mandates in the other three cases. No appeal in these cases was previously before this or any other appellate court.

The question of the appropriate level of deference to a district court's claim construction is currently before the *en banc* Court. *See Lighting Ballast Control LLC v. Philips Elecs. N. Am. Corp.*, 500 F. App'x 951, 951-52 (Fed. Cir. 2013) (granting petition for rehearing *en banc*). Counsel for Defendant-Appellee Advanced Micro Devices, Inc. ("AMD")[1] is unaware of any other case pending in

[1] AMD, Defendant-Appellee in Appeal No. 2013-1456 NVIDIA Corporation ("NVIDIA"), and Defendants-Appellees in Appeal No. 2013-1457 Intel Corporation ("Intel"), Texas Instruments Incorporated ("TI"), and Marvell Semiconductor, Inc. ("Marvell") are referred to herein collectively as "Appellees."

this or any other court that will directly affect or be directly affected by the Court's decision in this appeal.

INTRODUCTION

The patent-in-suit recites specific and narrow claims to particular power management circuit configurations that the inventors purported to invent. Nearly two decades after that supposed invention, the patent was bought by Appellant Power Management Solutions LLC ("PM"), a subsidiary of patent holding company Acacia Research Corporation ("Acacia"). PM proceeded to assert the patent against several chipmakers, including Appellees Intel, TI, Marvell, NVIDIA, and AMD, urging that the patent should be read broadly on a host of configurations neither envisioned by the inventors nor described in the patent.

The district court correctly rejected PM's broad interpretation of the claims and entered a claim construction order fully consistent with the claim language, specification, and prosecution history. PM was forced to admit that, under the district court's constructions, none of Appellees' products infringes, and it stipulated to judgments of non-infringement. A0575-78, A0615-16, A0628-29 (Stipulations); A0001, A0619, A0631 (Final Judgments).[2]

On appeal, PM again seeks to have the patent's claims interpreted to cover whole classes of power management circuits, rather than the particular circuit

[2] Except as otherwise noted, all appendix citations in this brief refer to the appendix for Appeal No. 2013-1457. The claim construction issues across these three matters are identical; for the convenience of the Court, the Appellees in the three cases have cited to a single appendix rather than three separate appendices.

configurations that the inventors described in their detailed claims. To do so, PM has to stretch the meaning of the terms "internal" and "external" in ways that contradict their plain meaning and use in the patent, and must also assert a construction of "internal functional circuit function" that contradicts a concession PM made below. But PM offers no support for its own alternative constructions in the claim language, the specification, or the prosecution history, because there is none. PM has shown no error in the district court's judgment, and it should be affirmed.

STATEMENT OF ISSUES ON APPEAL

1. Whether the district court correctly construed "internal" and "external" to mean "on the integrated circuit substrate" and "off the integrated circuit substrate," respectively.

2. Whether the district court correctly construed "internal functional circuit function" as "the specified electronic function or group of electronic functions that the internal functional circuit was designed to perform using power and the first electrical signals," where PM conceded to the district court that "[i]t is self-evident that the internal function[al] circuit could not perform any function without power [and] cannot perform any function without some input." A0372.

STATEMENT OF THE CASE

PM brought the underlying infringement suit against Appellees Intel, TI, and Marvell in the District of Delaware on August 22, 2011.[3] A0139. PM accused those Appellees of infringing U.S. Patent No. 5,504,909 (the "'909 patent").

On April 5, 2012, PM filed the related underlying suits against Appellees Advanced Micro Devices Inc. ("AMD") and NVIDIA Corporation ("NVIDIA"), also asserting infringement of the '909 patent. A0601, A0607. On January 18, 2013, the district court held a consolidated *Markman* hearing for all three cases. A0147. Shortly thereafter, PM filed a separate suit against Qualcomm Incorporated ("Qualcomm"), again alleging infringement of the '909 patent. A0613.

On May 30, 2013, the district court issued claim construction orders in the underlying cases. A0002-09, A0579-87, A0620-27. As a result of the district court's constructions, PM stipulated that Appellees' accused products did not infringe the '909 patent. A0575-78, A0615-16, A0628-29. On June 14, 2013, the district court entered final judgments of non-infringement based on those

[3] PM's original Complaint also named Freescale Semiconductor Inc. as a defendant. A0139 at D.E. 1. Pursuant to a joint stipulation, the district court dismissed PM's claims against Freescale with prejudice. A0146 at D.E. 77. PM did not name TI in the initial Complaint, but added TI as a defendant in its First Amended Complaint. A0140 at D.E. 11, 13.

stipulations. A0001, A0575-76, A0619, A0631. The district court also entered a final judgment of non-infringement in the Qualcomm action. A0614.

Appeals in all four cases followed. Pursuant to a joint motion, this Court stayed the briefing schedule in the Qualcomm case pending the issuance of mandates in the other three cases. *See* Appeal No. 2013-1477, D.E. 25. On October 1, 2013, the parties in the Intel/Marvell/TI appeal, the AMD appeal, and the NVIDIA appeal moved the Court to consolidate the three cases. Appeal No. 2013-1455, D.E. 14, Appeal No. 2013-1456, D.E. 16, Appeal No. 2013-1457, D.E. 31. The Court has not acted on those motions.

STATEMENT OF FACTS

I. THE PARTIES

Appellees are among the world's leading developers of integrated circuit technologies. A0321 (Joint Claim Construction Brief). They design, develop, manufacture, and sell a variety of products for the computing and communications industries, including microprocessors, chipsets, network interface controllers, and graphics processors. *Id.*

PM is a wholly-owned subsidiary of Acacia, which acquires and licenses patented technologies. *Id.* PM purports to be the owner of the '909 patent, which was originally assigned to a separate company, Electronics Products Corporation. A0321-22. Neither PM nor Acacia makes any products covered by the '909 patent. A0321. Based on the discovery in this case, Appellees are not aware of any entity that has agreed to license the '909 patent. A0322. Nor does it appear that the patent has ever been used in any commercial product. *Id.*

II. THE '909 PATENT

The '909 patent—entitled "Power Management Apparatus Collocated On The Same Integrated Circuit As The Functional Unit That It Manages"—is directed to a specific implementation of a type of power management known as "power gating." A0018-19 [1:1-3:28]. The application was filed in 1994, and the patent issued in 1996. A0010. The '909 patent has three claims: independent

claim 1 and dependent claims 2 and 3. A0027 [19:22-20:45]. PM has asserted claims 1 and 3 in this litigation. A0320.

The '909 patent involves electronic circuits that are "integrated" (*i.e.*, combined together) onto a computer chip. Specifically, the '909 patent describes a power management apparatus on an "integrated circuit substrate." The substrate is the part of the chip on which circuits are constructed and interconnected. A0019 [4:33-35] (defining "integrated circuit substrate" as "a means within or on which electronic components can be constructed and interconnected to form a functional circuit").

The specification defines "the present invention" as a "Power Management Apparatus" ("PMA") that has two distinct embodiments. In the "First Embodiment," which the specification describes as an "***internal solution***," the power management apparatus is located ***on*** the same integrated circuit substrate as an "internal functional circuit." A0020 [5:19-52; 6:57-59].[4] In the "Second Embodiment," which the specification describes as an "***external solution***," the PMA is located ***off*** the integrated circuit substrate that contains the "internal functional circuit," and is part of a separate chip. A0020 [5:56-6:11; 6:57-59].

The specification describes three specific "variations" of the "first" and "second" embodiments. A0023-25 [11:26-15:60]; A0025-26 [16:43-18:44]. Two

[4] Except as otherwise noted, all emphasis in this brief is added.

of these six variations—the "First Variation of the First Embodiment" and the "Third Variation of the First Embodiment"—are relevant here, because they correspond to the two asserted claims (claims 1 and 3).

A. Claim 1 and the "First Variation of the First Embodiment"

Asserted claim 1 recites the following:

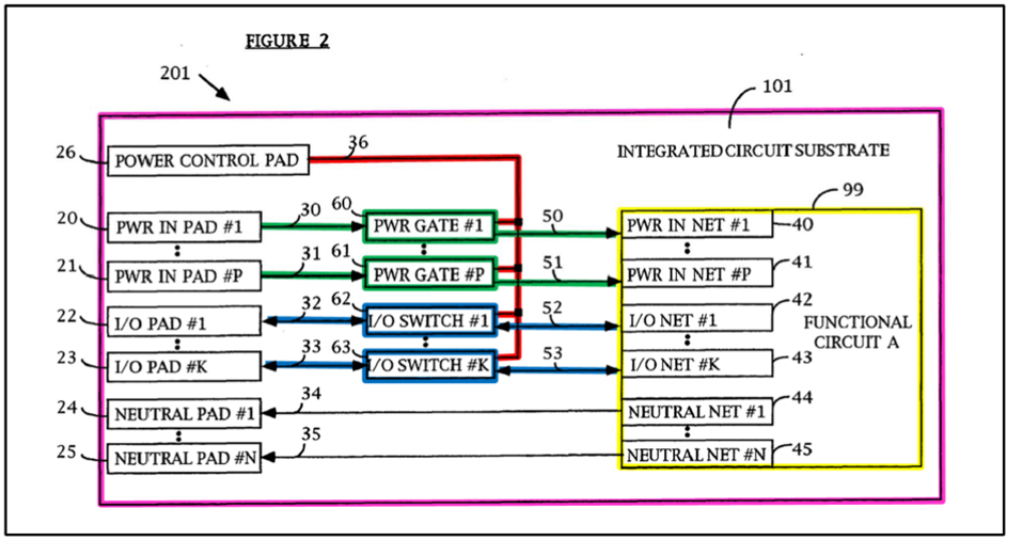
> 1. A power management apparatus for regulating the use of electrical energy in an internal functional circuit, the power management apparatus comprising:
>
> an ***integrated circuit substrate*** whereon 1) the internal functional circuit, 2) a power gating means, and 3) a switching means are constructed, wherein electrical power is controllably passed from an external power supply through the power gating means to the internal functional circuit, wherein one or more first electrical signals are controllably passed between an external functional circuit and the internal functional circuit via the switching means, and wherein a second externally generated electrical signal controls the coupling action in the power gating means via a first control input of the power gating means and further controls the coupling action in the switching means via a second control input of the switching means, wherein:
>
> the ***integrated circuit substrate*** providing a means for constructing and interconnecting electrical circuits,
>
> the ***internal functional circuit*** for performing an electrical function,
>
> the ***power gating means*** for coupling power between said external power supply and the internal functional circuit in response to the assertion of said second externally generated electrical signal, and for uncoupling power between said external power supply and the internal functional circuit in response to the deassertion of said second externally generated electrical signal,
>
> the ***switching means*** for coupling said first electrical signals passed between the external functional circuit and the internal functional

circuit in response to the assertion of said second externally generated electrical signal, and for uncoupling said first electrical signals passed between the external functional circuit and the internal functional circuit in response to the deassertion of said second externally generated electrical signal,

the improvement allowing the management of power to be distributed and decentralized onto the individual integrated circuit substrate where the application of power is to be managed, and allowing ***submicrosecond recovery of internal functional circuit function*** upon the assertion of the second externally generated electrical signal.

A0027 [19:22-20:22].[5]

Claim 1 corresponds to the "First Variation of the First Embodiment," which the specification depicts in Figure 2:



A0012. The main elements of claim 1 and the First Variation of the First Embodiment are as follows:

[5] For ease of reference, Appellees have edited the paragraph breaks in claim 1 to identify the main limitations more clearly.

- The **integrated circuit substrate** is the large rectangle highlighted in pink.
- The **internal functional circuit** is labeled "Functional Circuit A" and is highlighted in yellow.
- The **external functional circuit** is discussed in the description of the First Variation of the First Embodiment, but is "not shown" in Figure 2. A0023 [12:51-58].
- The **power gating means** consists of power gates labeled "PWR Gate" #1 through #P, highlighted in green.
- The **power** running to Functional Circuit A is highlighted in green.
- The **switching means** consists of input/output switches labeled "I/O switch" #1 though #K, highlighted in blue.
- The **first electrical signals** are highlighted in blue.
- The **second externally generated electrical signal** is highlighted in red.

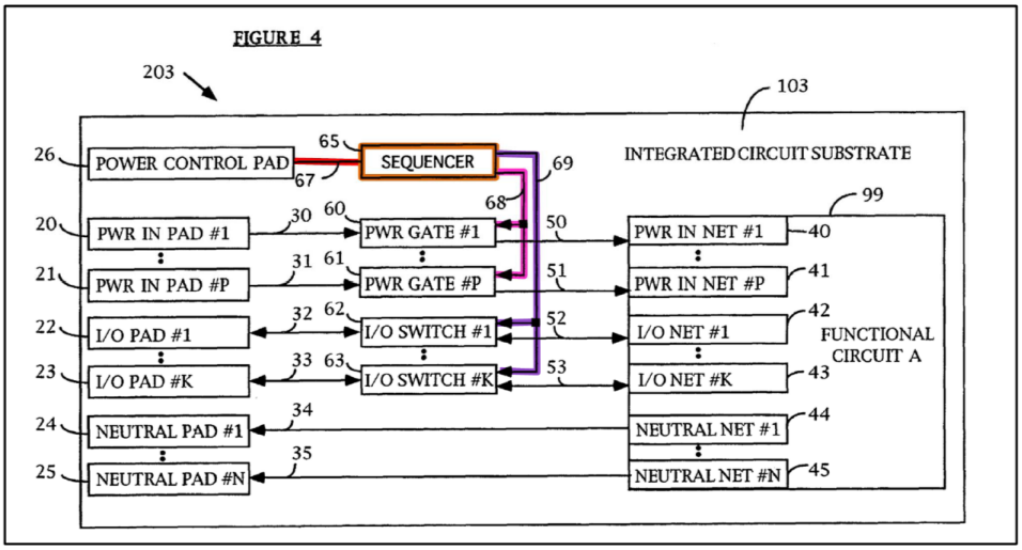
Figure 2 also depicts a column of "pads" on the left-hand side of the integrate circuit substrate. The specification explains that a "pad" is an area where the integrated circuit substrate can be connected to an external device. A0019 [4:47-49] (defining "pad" as "an area of an integrated circuit substrate for bonding a connection wire or other connection means onto the integrated circuit substrate").

B. Claim 3 and the "Third Variation of the First Embodiment"

Asserted claim 3 depends from claim 1 and adds the requirement of a "sequencer" that splits the "second externally generated electrical signal" into two different control signals, the "third electrical signal" and the "fourth electrical

signal." A0027 [20:32-45]. The third electrical signal controls the switching means and the fourth electrical signal controls the power gating means. *Id.*

Claim 3 corresponds to the Third Variation of the First Embodiment, which is depicted in Figure 4:



A0014. The main elements of dependent claim 3 and the Third Variation of the First Embodiment are as follows:

- The **second externally generated electrical signal** is highlighted in red.
- The **sequencer** is highlighted in orange.
- The **third electrical signal** is highlighted in pink.
- The **fourth electrical signal** is highlighted in purple.

Figure 4 is otherwise the same as Figure 2.

C. The Prosecution History

The ’909 patent was prosecuted *pro se* by Larry Webster, one of the two named inventors. A0086. The patent claims went through significant revision during prosecution, including two substantial amendments, and Mr. Webster abandoned several claims in light of the examiner’s prior art rejections. A0103.

The original application included six claims, each of which was specifically directed to one of the six “variations” of the two embodiments of the specification—*i.e.*, the three variations of the First Embodiment and the three variations of the Second Embodiment. A0065-74, A0089-90. For example, original claim 1, which extended over four pages of text, closely followed the specification’s description of the First Variation of the First Embodiment. A0023-24 [11:25-13:67]; A0065-68. Similarly, original claim 3 mirrored the Third Variation of the First Embodiment. A0024-25 [14:45-15:61]; A0069.

During prosecution, Mr. Webster acknowledged that the original claims were not properly drafted and submitted a first amendment that replaced original claims 1-6 with new claims 7-12. A0086-90. He explained in the amendment that each claim was simply a “rewrite” of the original claims—for example, “[c]laim 7 is a rewrite of claim 1 and does not represent new material.” A0089. He further explained that each claim was directed to a particular “variation” described in the specification—for example, claim 7 was directed to the “First Variation of the First

Embodiment" described in the specification and depicted in Figure 2. *Id*. Mr. Webster similarly explained that "[c]laim 9 is a rewrite of claim 3 and does not represent new material" and that it was directed to the "Third Variation of the First Embodiment" described in the specification and shown in Figure 4. *Id*.

The examiner rejected claims 7-12 as anticipated by or obvious in view of the prior art. A0093-96. In response, Mr. Webster again amended the claims, replacing claims 7 through 9 with claims 13 through 15. A0101-13. As before, Mr. Webster explained that each claim was directed to a specific "variation" of the First and Second Embodiments. Specifically, Mr. Webster stated that claim 13 was another "rewrite" directed to the specification's description of the "First Variation of the First Embodiment" and noted that "[t]he claim is entirely based on the drawing of figure 2 and the disclosure in the specification. No new matter has been added." A0103-04. He also made clear that the First Variation describes "[t]he construction and operation of the apparatus ***defined by*** this claim." A0103. Similarly, Mr. Webster stated that claim 15 was directed to the "Third Variation of the First Embodiment," and that "[t]he claim is entirely based on the drawing of figure 4 and the disclosure in the specification. No new matter has been added." A0104.

In this second amendment, Mr. Webster also abandoned all claims directed to the three variations of the "Second Embodiment" described in the specification.

A0103 ("Claims of Record #10, #11, and #12 have been abandoned in view of Bolan, USP #4,952,817.").

After the claims directed to the Second Embodiment were abandoned, the examiner issued an examiner's amendment deleting redundant text in the claim and changing the title of the patent from "Power Management Apparatus for Integrated Circuit Application" to "Power Management Apparatus Collocated On The Same Integrated Circuit As The Functional Unit That It Manages." A0116. After the examiner's amendment, the examiner allowed the three claims directed to the three variations of the First Embodiment (claims 13 through 15), which issued as claims 1 through 3 of the '909 patent. A0115.

III. THE DISTRICT COURT'S CLAIM CONSTRUCTION

On May 30, 2013, the district court issued orders in the three underlying cases construing the asserted claims. A0002-09, A0579-87, A0620-27. The district court's orders resolved a number of claim construction disputes, two of which are the subject of this appeal.

First, the district court construed "internal" to mean "***on*** the integrated circuit substrate" and "external" to mean "***off*** the integrated circuit substrate." A0006. The district court consistently applied these definitions in construing other disputed claim terms that included "internal" or "external":

Claim Term	Construction
"internal functional circuit"	"a circuit ***on the integrated circuit substrate*** that performs a specified electronic function or group of electronic functions"
"external functional circuit"	"a circuit ***off the integrated circuit substrate*** that performs a specified electronic function or group of electronic functions"
"externally generated"	"generated ***off the integrated circuit substrate***"
"second externally generated electrical signal"	"a signal generated ***off the integrated circuit substrate*** that controls the coupling and uncoupling of the power gating means, and the coupling and uncoupling of the switching means"

A0006-08.

Second, the district court construed "internal functional circuit function" as "the specified electronic function or group of electronic functions that the internal functional circuit was designed to perform using power and the first electrical signals." A0008. PM had previously acknowledged that it was "self-evident" that the internal functional circuit "could not perform any function without power" and "cannot perform any function without some input." A0372.

The district court's orders in the three underlying cases adopted identical constructions of these terms. A0006-08, A0583-85, A0624-27. The order in the AMD case also construed three additional terms that were not in dispute in the other two cases. A0586-87.

IV. PM'S STIPULATION OF NON-INFRINGEMENT

PM stipulated that, under the district court's constructions, none of Appellees' accused products satisfied any of the "internal functional circuit," "external functional circuit," "externally generated," "second externally generated electrical signal," or "internal functional circuit function" limitations. A0575-76, A0615-16, A0628-29. Based on those stipulations, the district court entered final judgments of non-infringement. A0001, A0619, A0631.

SUMMARY OF THE ARGUMENT

1. The district court correctly concluded that the terms "internal" and "external" require a reference point—something that the claimed structures are "internal" or "external" ***to***. The claims, specification, and prosecution history consistently use the terms "internal" and "external" with reference to the claimed "integrated circuit substrate." In the claims, structures that are described as on the substrate are "internal," and structures that are described as (or that must be) off the substrate are "external." The specification confirms this "internal"/"external" distinction: the "internal solution" is one in which the power management apparatus is on the same substrate as the functional circuit being power-managed, and the "external solution" is one in which the power management apparatus is on a different substrate from the functional circuit being power-managed. The specification and prosecution history consistently use "external" to refer to structures—such as the "external power supply"—that are undisputedly off the claimed integrated circuit substrate.

PM, on the other hand, argues—without any support in the claim language, the specification, or the prosecution history—that the reference point for "internal" and "external" is not the substrate itself, but "the ***portion*** of the substrate for which the power management scheme is being applied." PM Br. 27. As the district court correctly concluded, nothing in the claims or the specification supports PM's

construction. PM's construction is also logically inconsistent with the specification: under PM's construction, the power management apparatus of the First Embodiment would be an "external solution" because it is outside the portion of the substrate that is being power managed, but the patent describes the First Embodiment as an "internal solution."

In addition, PM's argument that its construction is supported by the specification's "General Remarks on Content" is without merit. None of the examples in the General Remarks uses the terms "internal" or "external" in the way that PM proposes. PM's argument based on these General Remarks is circular: PM merely assumes—without any support—that components on the integrated circuit substrate are "external" components, and then argues that this is evidence that "external" components can be on the integrated circuit substrate. This reasoning does not support PM's construction and should be rejected.

PM's assertion that the district court's constructions in the Intel/Marvell/TI and NVIDIA cases and the AMD case are somehow inconsistent likewise lacks merit. The district court adopted ***identical*** constructions of "internal" and "external" in all three cases and expressly noted that its other constructions were intended to be "consistent with the Court's construction of the terms 'internal functional circuit' and 'external functional circuit.'" A0586-87.

2. The district court's construction of "internal functional circuit function" also was correct and provides an alternative basis for affirmance. The district court correctly accepted PM's concession that the claimed internal functional circuit cannot perform its function without power and some input signal. A0372. PM does not even address its prior concession in its opening brief, much less indicate how the district court could have erred in accepting it.

The district court's judgment should be affirmed.

ARGUMENT

I. STANDARD OF REVIEW

This Court "review[s] claim construction *de novo* on appeal including any allegedly fact-based questions relating to claim construction." *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1456 (Fed. Cir. 1998). The question of the appropriate level of deference to a district court's claim construction is currently before the *en banc* Court. *See Lighting Ballast Control LLC v. Philips Elecs. N. Am. Corp.*, 500 F. App'x 951, 951-52 (Fed. Cir. 2013) (granting petition for rehearing *en banc*). In this case, the district court's constructions were correct and should be affirmed under any standard of review.

II. THE DISTRICT COURT CORRECTLY CONSTRUED "INTERNAL" AND "EXTERNAL."

A. The Claim Language Supports The District Court's Constructions Of "Internal" And "External."

PM does not dispute that the words "internal" and "external" necessarily implicate a reference point; the only disputed question as to these terms is therefore: "internal or external ***to what***?" The district court correctly concluded that the claim language provides only one consistent reference point for "internal" and "external": the claimed "integrated circuit substrate."

The first limitation of claim 1 makes this clear by describing an "integrated circuit substrate" "***whereon***" certain elements are constructed, one of which is the claimed "***internal*** functional circuit." A0027 [19:26-39] ("an ***integrated circuit***

substrate **whereon** 1) the ***internal*** functional circuit, 2) a power gating means, and 3) a switching means are constructed"). The use of the word "whereon" demonstrates that the "***internal*** functional circuit" is "on" the integrated circuit substrate. By contrast, the elements that the claim describes as "external"—the "external power supply," the "external functional circuit," and the structure that generates the "externally generated electrical signal"—are not described as "on" the integrated circuit substrate. *Id.* In fact, PM has never controverted Appellees' demonstration that at least one of these defined "external" structures—the "external power supply"—***cannot*** be on the integrated circuit, because it is physically impossible for a circuit to provide its own power. A0329 (Joint Claim Construction Brief).

PM urges a different reference point for "internal" and "external," namely the "***portion*** of the substrate for which the power management scheme is being applied." PM Br. 27. That phrase appears nowhere in the claims or specification, nor is it in any way associated with the words "internal" and "external." None of the claims draws any conceptual distinctions between the parts of the integrated circuit whose power is managed and other parts whose power is not managed. Rather, the claims' only point of reference for the "internal"/"external" distinction is the "integrated circuit substrate."

B. The Specification Supports The District Court's Constructions Of "Internal" And "External."

The '909 patent specification confirms that the "integrated circuit substrate" is the correct reference point for "internal" and "external" in three ways: (1) by describing the First Embodiment (an on-chip power management apparatus) as "internal," in contrast to the Second Embodiment (an off-chip power management apparatus), which is described as "external"; (2) by using "external" specifically in reference to separate "chips"; and (3) by consistently describing on-chip components as "internal" and off-chip components as "external."

1. The specification uses "internal" and "external" to distinguish the First (on-chip) Embodiment from the Second (off-chip) Embodiment.

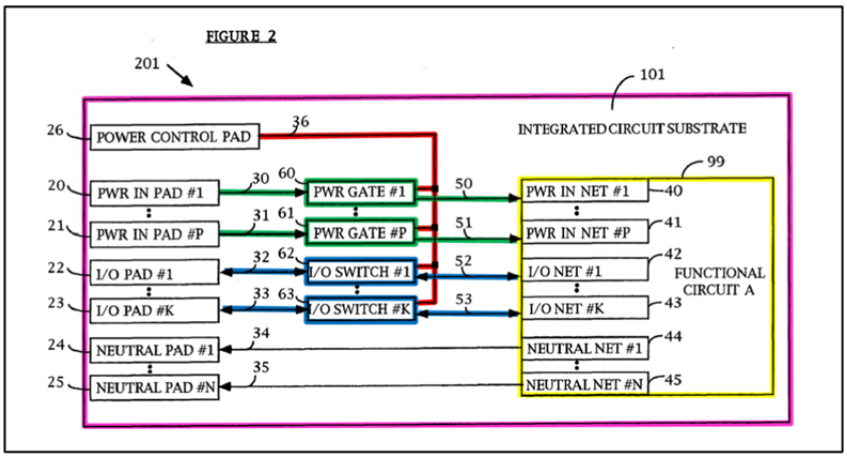
The district court's constructions of "internal" and "external" are supported by the distinction that the specification makes between the "First Embodiment" and the "Second Embodiment" of the claimed invention. The specification explains that the "first embodiment represents an ***internal solution***" while "the second embodiment represents an ***external solution***." A0020 [6:57-59].[6] The First Embodiment is described as an "internal solution" because the disclosed power

[6] Contrary to PM's assertion (PM Br. 22-24), the district court did not find, *sub silentio*, that the patentees acted as their own lexicographer by using the phrases "internal solution" and "external solution" to describe the two embodiments. *See* A0006-07. Rather, the district court properly found that the way the specification distinguished the "internal solution" from the "external solution" provided further confirmation of the patentees' use of the terms "internal" and "external." *Id*.

management apparatus is "collocated" on the integrated circuit substrate with the "internal functional circuit." A0010 (title of patent); A0116 (Prosecution History, Examiner Amdt.); *see generally supra* p. 16 [Facts Section II.C] (discussing the examiner's amendment changing the patent's title to "Power Management Apparatus Collocated On The Same Integrated Circuit As The Functional Unit That It Manages," after the patentees abandoned all claims directed to the "external solution" of the "Second Embodiment"). The Second Embodiment is described as an "external solution" because the PMA is located off the integrated circuit substrate that contains the "internal functional circuit," and instead is located on a different integrated circuit substrate. A0020 [6:43-50].

More specifically, the First Embodiment includes three "variations" that correspond to the three issued claims of the '909 patent. A0023-25; A0012-14 [11:11-15:60; Figs. 2-4]; *see supra* pp. 14-15 [Facts Section II.C] (setting forth prosecution history statements showing correspondence between the variations of the First Embodiment and issued claims 1 through 3). In each of these variations of the First Embodiment, the claimed elements of the PMA are "collocated" on the integrated circuit substrate with the "internal functional circuit." A0010; A0116.

The First Variation of the First Embodiment, which corresponds to claim 1, is depicted in Figure 2:



A0012. As shown here, the "power gating means" (Power Gates 1 through P) and the "switching means" (I/O Switches 1 through K) are all "collocated" on the same integrated circuit substrate as the "internal functional circuit" (Functional Circuit A). A0020 [5:19-24, 43-46]. Similarly, in the Second Variation of the First Embodiment (which corresponds to issued claim 2, not asserted here), the PMA includes a "buffer," which is also collocated on the same integrated circuit substrate as the "internal functional circuit" (Functional Circuit A). *See* A0013 (Fig. 3). Finally, in the Third Variation of the First Embodiment (which corresponds to issued claim 3), the PMA includes a "sequencer," which is also collocated on the integrated circuit substrate with the internal functional circuit ("Functional Circuit A"). *See* A0014 (Fig. 4). Thus, in each variation of the First Embodiment's "***internal solution***" (A0020, A0023-25 [6:57-59; 11:27-16:41]), all

the elements of the claimed PMA are collocated ***on the integrated circuit substrate*** with the internal functional circuit.

By contrast, the Second Embodiment is the "***external solution***." A0020 [6:57-59]. It includes three "variations" that correspond to the three claims that were abandoned during prosecution. A0025-26; A0015-17 [15:62-18:56; Figs. 5-7]; *see supra* pp. 15-16 [Facts Section II.C] (discussing patentees' abandonment of claims directed to the Second Embodiment after the examiner rejected them as anticipated and obvious). In each of these variations of the Second Embodiment, "the PMA [is] integrated into a[n] integrated circuit ***separate*** from the functional circuit." A0020 [6:43-45]. The First Variation of the Second Embodiment is depicted in Figure 5:

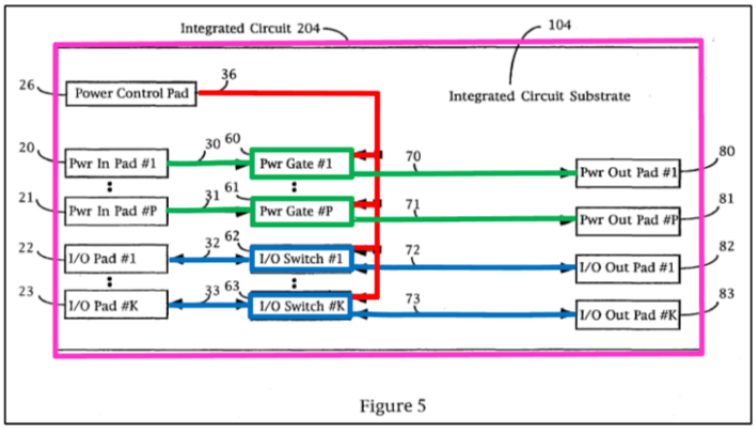


Figure 5

A0015. This figure shows the entire integrated circuit substrate, where the area outlined in pink is labeled "Integrated Circuit Substrate 104." The elements of the PMA (*i.e.*, the power gates and I/O switches) are shown in this figure as part of the integrated circuit substrate. The "internal functional circuit" is not depicted,

however, because it is located on a "separate" integrated circuit substrate. Likewise, in the second and third variations of the Second Embodiment, the buffer and sequencer elements of the PMA are also located off the integrated circuit substrate that contains the "internal functional circuit." *See* A0015-16 (Figs. 5-6). Thus, in each variation of the Second Embodiment, which the patent calls the "***external*** solution" (A0020 [6:57-59]), all the elements of the claimed PMA are located ***off the integrated circuit substrate***.

The specification accordingly distinguishes between the "internal solution" and the "external solution" based on whether the relevant structures are all on the same integrated circuit substrate ("internal") or on a different substrate ("external"). This supports the district court's construction of "internal" and "external" as referring to structures that are respectively "on" or "off" the integrated circuit substrate.

2. The specification uses "external" to refer to a separate "chip."

The specification's section on the "Objects of the Second Embodiment" provides yet further evidence that the word "external" describes a component that is off the integrated circuit substrate, namely an "external chip." The specification states:

> It is a first object of the second embodiment of the present invention to define a new integrated circuit type which combines the means of "power gate," "I/O switch," and integrated circuit substrate which

> function as in the first embodiment, ***but with the functional circuit removed and located in an external chip***.

A0020 [5:56-61]. The "external chip" is a different chip from the one containing the power gate and switch. It is, therefore, "off" the integrated circuit substrate. This is thus another example in the specification where the patentees expressly used the term "external" to refer to a structure that is "off the integrated circuit substrate."

Similarly, the patent's Abstract uses the term "external" to distinguish the separate integrated circuits (*i.e.*, chips) involved in the Second Embodiment: "A second embodiment instantiates the power management apparatus ***on an integrated circuit by itself for connection to external integrated circuits***." A0010 (Abstract).

3. The specification associates "external" components with "pads."

Finally, each time the word "external" appears in the specification, it describes a structure that must be off of the integrated circuit substrate and connected to that substrate through a "pad."

For the components that the patent describes as "external," there is an associated "pad." The specification explains—and PM does not appear to dispute—that pads are the areas where integrated circuit substrate "connect[s]" to devices that are ***off*** the integrated circuit substrate. *See* A0019 [4:47-49] (defining

"pad" as "an area of an integrated circuit substrate for bonding ***a connection wire or other connection means*** onto the integrated circuit substrate").

The specification provides three main examples of pads being used to connect the integrated circuit substrate to "external" components off that substrate. ***First***, the specification consistently describes the "power control signal" that controls the power gates and I/O switches (and therefore corresponds to the claimed "second externally generated electrical signal") as coming from an "external agent" through a "power control pad" and into the integrated circuit substrate. *See* A0012-17; A0024-25 [Figs. 2-7; 14:29-42,15:6-8]. ***Second***, the electrical power sent from the "external power supply" is consistently described as coming from off the integrated circuit substrate through "power in pads" and into the integrated circuit substrate. *See* A0023 [12:30-37]; A0012-17 [Figs. 2-7]. And ***third***, the signals sent from the "external functional circuit" come from off the integrated circuit substrate through "I/O pads" and into the integrated circuit substrate. *See* A0012-17, A0023-26 [Figs. 2-7; 11:54-57; 13:44-67; 15:31-36; 15:54-60; 16:62-67; 17:15-19; 17:34-37; 17:60-67; 18:10-25; 18:39-44]. In each example, the specification consistently uses "external" to refer to components that are off the integrated circuit substrate, as confirmed by the presence of "pads" connecting the components (and the "signals" they produce) to the integrated circuit substrate.

C. The Prosecution History Confirms The District Court's Constructions Of "Internal" And "External."

Although the claim language and specification show the correctness of the district court's claim construction, the prosecution history provides additional confirmation. During prosecution, Mr. Webster made two amendments to what is now asserted claim 1, both of which provide additional intrinsic support for the district court's constructions of "internal" and "external." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1317 (Fed. Cir. 2005) (*en banc*) ("[T]he prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention . . . .").

First, in the course of amending what is now asserted claim 1, Mr. Webster proposed claim language that used the term "external" to describe a circuit that was "off the integrated circuit substrate"—as confirmed by the claimed use of pads:

> 7. A power management apparatus for regulating the use of electrical energy in an integrated circuit, the integrated circuit having a functional circuit, the power management apparatus, at least one power input pad, and at least one signal pad, wherein power is controllably passed from ***an external power supply connected to one or more power input pads*** through the power management apparatus to the functional circuit, and wherein one or more first electrical signals are controllably passed between an ***external electronic circuit connected to one or more signal pads*** and the functional circuit through the power management apparatus.

A0086 (Prosecution History Amdt., Jan. 30, 1995, at 1). In this proposed claim, the "external power supply" and the "external electronic circuit" are both

connected by "pads" to the integrated circuit substrate that contains the power management apparatus and the functional circuit. Because pads provide the "connection" between the integrated circuit substrate and devices off the substrate, the "external power supply" and the "external electronic circuit" must logically be off the substrate. A0019 [4:47-49]. Although Mr. Webster subsequently amended claim 7 and removed the "pad" requirement, the use of "external" in this proposed claim confirms that the patentees considered the word "external" to mean "off the integrated circuit substrate."[7]

Second, in arguing for allowance of issued claim 1 (proposed claim 13), Mr. Webster stated that the claim was "entirely based" on the "First Variation of the First Embodiment" depicted in Figure 2:

> The construction and operation of the apparatus defined by [issued claim 1] is described in detail under "First Variation of the First Embodiment of the Invention" on pages 19 through 23. ***The claim is entirely based on the drawing of figure 2 and the disclosure in the specification***.

A0103-04 (Prosecution History Amdt., June 21, 1995, at 3-4).[8]

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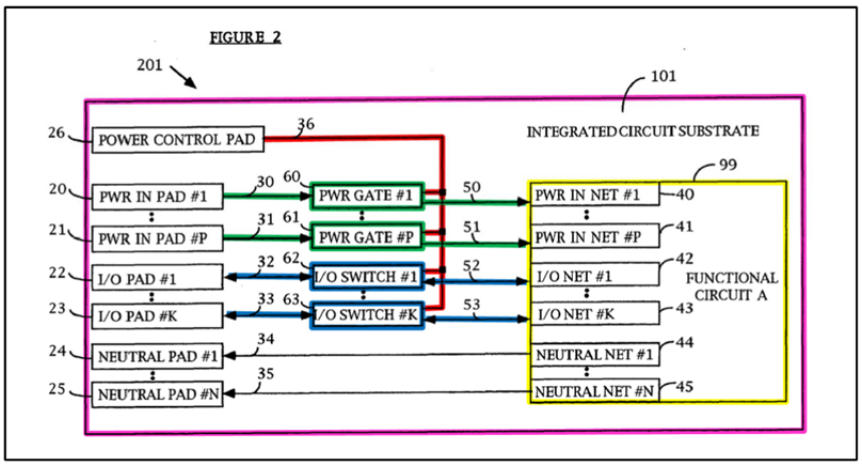
[7] This is further corroborated by Mr. Webster's subsequent argument during prosecution that in proposed claim 15 (now claim 3), "the second ***externally*** generated electrical signal . . . ***enters the integrated circuit substrate at the control pad***." A0104. As before, this confirms that the patentees used the word "external" to mean "off the integrated circuit substrate."

[8] This same analysis applies to issued claim 3, which Mr. Webster explained corresponds to the "Third Variation of the First Embodiment" depicted in Figure 4:

This supports the district court's construction of "external" in claim 1, in that every "external" component in the First Variation of the First Embodiment is off the integrated circuit substrate. Thus, Figure 2's depiction of the integrated circuit substrate in the First Embodiment (*i.e.*, issued claim 1) does not include any of the "external" components:



A0012. Every component of the First Variation of the First Embodiment that is described as "external" is connected to the integrated circuit substrate through a "pad"—and thus must be off the integrated circuit substrate. The "external agent" that controls the power management apparatus is not shown in Figure 2 and must be off the integrated circuit substrate, because it sends the power control signal (the "second externally generated electrical signal") through the "power control pad" to

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> The construction and operation of the apparatus defined by this claim is described in detail under "Third Variation of the First Embodiment of the Invention" on pages 24 through 26. ***The claim is entirely based on the drawing of figure 4 and the disclosure in the specification***.

A0104 (Prosecution History Amdt., June 21, 1995, at 4).

the power gates and I/O switches on the integrated circuit substrate. The "external power supply" is also not shown in Figure 2 and likewise must be off the integrated circuit substrate because it sends electrical power through the "power in pads" to the power gates on the substrate. And the "external functional circuit," also not shown in Figure 2, must be off the integrated circuit substrate because it sends the signals through the "I/O pads" to the I/O switches on the substrate.

Thus, the prosecution history makes clear that claim 1 is "entirely based" on figure 2 and the accompanying disclosure, and that figure and disclosure make clear that the "external" components are off the integrated circuit substrate.

D. PM's Contrary Arguments Lack Merit.

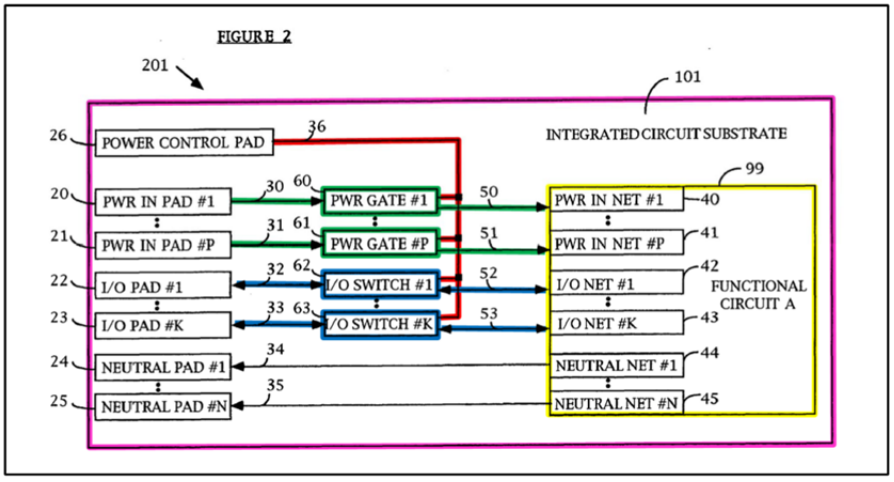
PM's contrary arguments have no support in the '909 patent; rather, they attempt to expand the scope of the claims beyond the claim language, specification, and prosecution history. They should be rejected.

1. The intrinsic record contradicts PM's asserted constructions.

PM asserts that "internal" or "external" should be interpreted not by reference to the integrated circuit substrate itself, but by reference to "the portion of the substrate for which the power management scheme is being applied." PM Br. 27. PM cites no evidence whatsoever in affirmative support of that proposed construction. *See* PM Br. 27-28. That is no surprise, as the patentees ***never*** use the terms "internal" and "external" to carve up the integrated circuit substrate as PM

proposes. In fact, the patent never refers to any component on an integrated circuit substrate as being "external" to another portion of the same substrate. Nor does the prosecution history refer to any component on the integrated circuit substrate as an "external" component.

Indeed, PM's proposed constructions are contradicted by the patent's distinction between its First Embodiment as an "***internal solution***" and its Second Embodiment as an "***external solution***." A0020 [6:57-59]. Under PM's construction, a power management solution would be an "external solution" if the power management apparatus were "outside of the portion of the substrate for which the power management scheme is being applied." But if PM were correct, then the power management solution of the First Embodiment would itself be an "external" solution, because it places the power management apparatus outside the portion of the substrate whose power is being managed:



A0012. In the First Embodiment, the PMA consists of the power gates and I/O switches (outlined in green and blue) that are located outside the internal functional circuit that is being power-managed (Functional Circuit A, outlined in yellow). Under PM's argument, every component on the integrated circuit substrate that is outside the yellow box of Functional Circuit A—including power gates #1 through #P and I/O switches #1 through #K—would be an "external" component, such that the First Embodiment would be an "external solution." But the patent describes this arrangement as an "***internal*** solution" (A0020 [6:57-59]), which demonstrates the incorrectness of PM's construction.

2. None of the examples PM relies on supports its proposed construction.

The '909 patent also includes three examples in a section under the heading "General Remarks on Content," which discuss how the claimed power management apparatus can be used to manage power when the substrate includes more than one distinct functional circuit. A0021-22 [8:57-9:65]. Each of these examples describes various alternative arrangements of functional circuits. But, because these examples do not describe the circuits as "internal" or "external" and because the examples appear to be of solely internal functional circuits, they do not shed any light on the "internal"/"external" claim construction issue presented in

this appeal.[9] PM's attempt to rely on these examples is therefore essentially circular: PM assumes that the circuits described in the examples (e.g., Functional Circuits B and C) are "external functional circuits"—even though the examples themselves give no indication that they are "external." Based on its assumption that the circuits in the examples are "external," PM argues that the examples are evidence that "external functional circuits" can be on the integrated circuit substrate with the "internal functional circuit." PM's reasoning does not provide any support to PM's construction and should be rejected.

None of the examples in the "General Remarks" section support PM's constructions of "internal" and "external." ***First***, in the discussion of Functional Circuit B, the specification describes a circuit that is not power-managed, but is located on the same integrated circuit substrate as Functional Circuit A, which is power-managed. A0021-22 [8:57-9:4]. Under the district court's correct construction of "internal," Functional Circuit A and Functional Circuit B are both ***internal*** functional circuits, because they are on the same integrated circuit substrate. Although PM tries to present Functional Circuit B as an "external

[9] The only sentence relating to these embodiments that contains the term "external" is: "Conversely, a functional circuit could be created which, when no power is applied, does not adversely impact external circuitry, as defined by the designer using such a device." A0022 [9:37-39]. Nothing in this sentence undermines the district court's construction or supports PM's construction of "external" as "outside of the portion of the substrate for which the power management scheme is being applied."

functional circuit" located on the integrated circuit substrate (PM Br. 16-17), the patent nowhere describes Functional Circuit B as "external"; indeed, the words "internal" and "external" never appear in the description of Functional Circuit B.

Second, in the discussion of Functional Circuit C, the specification again describes a circuit that is not power-managed, but is located on the same integrated circuit substrate as Functional Circuit A, which is power-managed. A0022 [9:5-20]. The only difference between Functional Circuits B and C is that Functional Circuit C has "signal connectivity" with Functional Circuit A so that signals can be passed from Functional Circuit A to Functional Circuit C, when Functional Circuit A is powered on. Under the district court's correct construction, Functional Circuit A and Functional Circuit C are both ***internal*** functional circuits, because they are both on the same integrated circuit substrate. Thus, contrary to PM's assertion (PM Br. 17), Functional Circuit C—like Functional Circuit B—is not an example of an "external functional circuit" on the integrated circuit substrate.

Once again, PM's effort to present Functional Circuit C as "external" is unsupported. Functional Circuit C is never described as "external" in the specification, and the words "internal" and "external" never appear in the description of Functional Circuit C. PM does not cite any evidence to the contrary, but instead assumes the premise it purports to prove. PM asserts that the following

sentence describes an external functional circuit located on the integrated circuit substrate:

> In this event, electrical signals do not necessarily pass through the integrated circuit substrate pads but can transition directly from the ***Functional Circuit A*** 99 nets, through an I/O switch to ***Functional Circuit C***.

A0022 [9:14-17]; *see* PM Br. 22. However, PM rewrites this sentence by replacing "Functional Circuit A" with the claim term "Internal Functional Circuit" and "Functional Circuit C" with the claim term "external functional circuit":

> In this event, electrical signals do not necessarily pass through the integrated circuit substrate pads but can transition directly from the ***[Internal Functional Circuit]*** nets, through an I/O switch to ***[the External Functional Circuit]***.

PM Br. 22. PM then relies on its rewritten sentence to support its claim that "Functional Circuit C" is an "external functional circuit." *Id*. This shows that PM's entire "Functional Circuit C" argument is baseless because it depends on its unsupported assumption that Functional Circuit C is an "external functional circuit."

Third, the "General Remarks" section also discusses an example in which more than one internal functional circuit can be power-managed independently:

> [A]n integrated circuit may contain two or more completely separate functional circuits on the same substrate, one or more of which have a PMA incorporated, and thus each separate functional circuit augmented with the PMA can be powered-up or powered-down independently.

A0022 [9:50-54]. This example—like the Functional Circuit B and Functional Circuit C examples—is entirely consistent with the district court's construction. In this example, two separate functional circuits are separately power-managed but are on the same integrated circuit substrate. Under the district court's construction, both of these circuits would be "internal" functional circuits because they are on the same integrated circuit substrate.

In addition to those three examples, the "General Remarks" section also discusses examples where "the number of power gates could be zero" or "the number of I/O switches could be zero." A0022 [9:21-49]. These examples—zero power gates and/or zero I/O switches—are irrelevant, unclaimed embodiments that conflict with the issued patent ***claims***, each of which requires at least one "power gating means" and one "switching means." A0027 [19:25-27; 20:30-31; 20:35-36]. In fact, Mr. Webster nowhere linked the "General Remarks" section to the claims, whereas he made crystal clear that claim 1 was "entirely based" on the First Variation of the First Embodiment. A0103-04. PM's reliance on the "General Remarks" is, therefore, misplaced.

PM also points to generic language alleging that the invention may encompass additional embodiments beyond those disclosed in the specification. PM Br. 20; *see* A0027 [19:16-20]. But such boilerplate language cannot be used to expand the scope of the claims. *See, e.g.*, *Wireless Agents LLC v. Sony Ericsson*

Mobile Commc'ns AB, 189 F. App'x 965, 967 (Fed. Cir. 2006); *IP Innovation, LLC v. Ecollege.com*, 156 F. App'x 317, 321 (Fed. Cir. 2005).

Thus, the examples provided in the "General Remarks" section of the '909 patent are fully consistent with the district court's constructions of "internal" and "external."

3. The Court should reject PM's attempt to disregard the prosecution history.

PM provides no basis for this Court to disregard the prosecution history that supports the district court's construction. As the district court correctly observed, "the cancelled claims 13 and 7 provide additional evidence of how the patentees used the modifiers 'internal' and 'external' in the '909 patent." A0007. However, PM argues that these cancelled claims are irrelevant because: (1) the patentees broadened the cancelled claims by amendment; and (2) the specification is supposedly inconsistent with the prosecution history. *See* PM Br. 21-22. PM is incorrect that the amendments render the prior cancelled claims irrelevant to claim construction, and PM is also incorrect that the prosecution history in inconsistent with the specification. Further, PM's arguments cannot be reconciled with the prosecution history statement that asserted claim 1 is "entirely based" on Figure 2 and the "First Variation of the First Embodiment." A0103-04.

First, PM misses the point of the prosecution history cited by the district court. PM appears to argue that the district court incorrectly found that the

amendments to cancelled claims 7 and 13 did not change the scope of the claims because the patentees said that the amendments did "not represent new material." The district court made no such finding. Rather, the district court found that the use of "external" in the cancelled claims provided further confirmation that the patentees used the term "external" to refer to components "off the integrated circuit substrate." *See supra* pp. 31-32 [Argument Section II.C] (discussing cancelled claim 7's use of "external" to describe components off the integrated circuit substrate). PM cannot reasonably dispute that the devices described as "external" in cancelled claim 7 are off the integrated circuit substrate.

Second, PM is incorrect that the prosecution history should be disregarded because it is somehow inconsistent with the patent's discussion of "Functional Circuit A" and "Functional Circuit C." Under the district court's correct construction, which is fully consistent with the prosecution history and the specification, Functional Circuit A and Functional Circuit C would both be "internal functional circuits," because they are both on the integrated circuit substrate. *See supra* pp. 37-38 [Argument Section II.D.2].

Third, PM does not even address the patentees' statement to the PTO that cancelled claim 13 (which issued as asserted claim 1) is "entirely based" on the "First Variation of the First Embodiment" depicted in Figure 2. A0103-04 ("The claim is entirely based on the drawing of figure 2 and the disclosure in the

specification."). As discussed in Argument Section II.C, this statement further supports the district court's construction of "external," because every "external" component in the First Variation of the First Embodiment is off the integrated circuit substrate. *See supra* pp. 32-34 [Argument Section II.C].

4. The district court's orders in the Intel/Marvell/TI and NVIDIA cases are fully consistent with its order in the AMD case.

PM next mistakenly argues that the district court's construction of "internal" and "external" in the Intel/Marvell/TI and NVIDIA cases conflicts with its construction in the AMD case. *See* PM Br. 25-26. In *AMD*, the district court adopted the exact same constructions of "internal" and "external" as it did in the other two cases:

> The term "internal" is construed to mean "on the integrated circuit substrate" and the term "external" is construed to mean "off the integrated circuit substrate."

A0583 (AMD Claim Construction Order), A0006 (Intel/Marvell/TI Claim Construction Order), A0624 (NVIDIA Claim Construction Order).

PM rests its argument on the district court's construction in *AMD* of two additional terms that were not in dispute in the other cases. *See* A0586-87; PM Br. 25-26. The district court rejected AMD's argument that the claims require "power in pads" and "I/O pads." PM argues that by making this determination, the district

court somehow undermined its construction of the "internal" and "external" terms. PM is wrong.

As an initial matter, the district court made it abundantly clear that nothing in the constructions of the additional disputed terms in the AMD case should be construed as inconsistent with its constructions of "internal" and "external." Rather, these additional constructions were intended to be "consistent with the Court's construction of the terms 'internal functional circuit' and 'external functional circuit.'" A0587.

PM is also wrong to assert (PM Br. 25-26) that the district court's construction of "external power supply" undermines its constructions of "internal" and "external." PM notes that, in construing one of the additional disputed claim terms in the AMD case, the district court replaced "external power supply" with "a supply located outside of the area to which power management is being applied." A0586. But that construction is entirely consistent with the district court's constructions of "internal" and "external." The district court's *AMD* construction simply reflects that the "external power supply" may pass to the internal function circuit by any means, not solely by pads as AMD proposed. A0586-87.[10]

[10] For this same reason, PM is mistaken in its reliance on the district court's statements that it rejected AMD's proposed constructions because they would exclude the Functional Circuit C example. PM Br. 25-26; A0586-87; *see also* A0022 [9:5-20] (describing the Functional Circuit C example). Functional Circuit C is an ***internal*** functional circuit that has "signal connectivity" with

Reading the district court's construction as PM suggests would broaden the claim scope to allow the power supply to be on the integrated circuit substrate—a physically impossible implementation. *Cf. Cordis Corp. v. Medtronic Ave, Inc.*, 511 F.3d 1157, 1174 (Fed. Cir. 2008) (noting that "a construction that renders the claimed invention inoperable should be viewed with extreme skepticism"). Tellingly, PM has never disputed (and cannot reasonably dispute) that the "external power supply" must necessarily be located off the integrated circuit substrate. *See* A0329.

Thus, nothing in the district court's AMD order should be read as altering or undermining the district court's identical construction of "internal" and "external" in the three underlying cases.[11]

III. THE DISTRICT COURT CORRECTLY CONSTRUED "INTERNAL FUNCTIONAL CIRCUIT FUNCTION," WHICH PROVIDES AN ALTERNATIVE BASIS FOR AFFIRMANCE.

As an alternative basis for affirmance, the Court should reject PM's challenges to the district court's construction of "internal functional circuit

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Functional Circuit A that is controlled by I/O switches. *See supra* p. 38 [Argument Section II.D.2]. As the district court made clear, the significance of that example with respect to its "external power supply" construction is solely that it does not require ***pads***, not that Functional Circuit C is somehow "external" despite being on the same substrate as the power-managed Functional Circuit A. A0586-87.

[11] To the extent this Court determines that there is some inconsistency, Appellees respectfully submit that the constructions of "internal" and "external" are plainly correct and should be affirmed.

function."[12] The district court construed "internal functional circuit function" as "the specified electronic function or group of electronic functions that the internal functional circuit was designed to perform using power and the first electrical signals." A0008. The claim construction dispute regarding this term does not turn on the meaning of "internal," but rather on the rest of the term—"functional circuit function."

Although PM attempts to challenge the district court's construction as an incorrect finding of a "disclaimer," no party argued any "disclaimer" below. Rather, after Appellees proposed the construction ultimately adopted, PM argued that no construction was necessary because Appellees' proposed construction was, according to PM, indistinguishable from the plain meaning of the term. Specifically, PM argued:

> Defendants have failed to explain why this term [is] necessary for construction or how their construction differs from the plain and ordinary meaning of the term.

A0373. Moreover, PM asserted that Appellees' construction was unnecessary because it is already "self-evident" that the functional circuit cannot perform its function without power and some input:

[12] If the Court affirms the district court's constructions of "internal" and "external," it need not reach this issue, as those constructions provide an independent basis for the judgment of non-infringement. A0575-76.

> It is self-evident that the internal function[al] circuit could not perform any function without power. Similarly, it is self-evident that the internal functional circuit cannot perform any function without some input.

A0372.

On appeal, PM has reversed course entirely. PM does not propose a construction for "internal functional circuit function," but instead asks this Court to reject the aspect of the district court's construction "requiring that the internal functional circuit must receive both power and the first electrical signal" to perform its specified function. PM Br. 30-31. PM provides no analysis or explanation for why such a reversal is warranted, nor does it assert that the district court committed error by accepting PM's own concessions on the point. PM should not be allowed to change its claim construction arguments on appeal after conceding below that Appellees' construction was indistinguishable from the plain and ordinary meaning and "self-evident." *See, e.g.*, *Conoco Inc. v. Energy & Envtl. Int'l, L.C.*, 460 F.3d 1349, 1358-59 (Fed. Cir. 2006) ("[A] party may not introduce new claim construction arguments on appeal or alter the scope of the claim construction positions it took below."); *SuperGuide Corp. v. DirecTV Enters., Inc.*, 358 F.3d 870, 889 (Fed. Cir. 2004) (finding waiver of claim construction argument where the party agreed to a construction before the district court).

In any event, the district court was correct that the internal functional circuit cannot perform its specified function without power and input from first electrical signals. The specification expressly defines the "functional circuit" as a "means for performing a ***specified electronic function or group of electronic functions***." A0019 [4:31-32]. Before the functional circuit receives both power and a first electrical signal, it has no ability to take action (no power) and no input to act on (no signal). Thus, PM was right when it told the district court that it "is self-evident that the internal function[al] circuit could not perform any function without power . . . [and] some input." A0372. Accordingly, the district court's construction of "internal functional circuit function" was correct, and the judgment of non-infringement can be independently affirmed on that basis as well.

CONCLUSION

The district court's judgment should be affirmed.

Dated: October 3, 2013

Respectfully submitted.

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CERTIFICATE OF SERVICE

I hereby certify that I filed the foregoing Brief for Defendant-Appellee Advanced Micro Devices, Inc. with the Clerk of the United States Court of Appeals for the Federal Circuit via the CM/ECF system this 3rd day of October, 2013, and served a copy on counsel of record by the CM/ECF system and by electronic mail.

Dated: October 3, 2013

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CERTIFICATE OF COMPLIANCE

Pursuant to Fed. R. App. P. 32(a)(7)(C), the undersigned hereby certifies that this brief complies with the type-volume limitation of Fed. R. App. P. 32(a)(7)(B)(i).

1. Exclusive of the exempted portions of the brief, as provided in Fed. R. App. P. 32(a)(7)(B), the brief contains 9,086 words.

2. The brief has been prepared in proportionally spaced typeface using Microsoft Word 2010 in 14 point Times New Roman font. As permitted by Fed. R. App. P. 32(a)(7)(B), the undersigned has relied upon the word count feature of this word processing system in preparing this certificate.

Dated: October 3, 2013

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